AMENDMENTS

In the Claims:

1. (Currently Amended) An internal combustion engine arrangement comprising:

a spark-ignited internal combustion engine having a controllable air/fuel ratio;

an exhaust line receiving exhaust gas from the internal combustion engine;

an oxide gas absorber in the exhaust line including a support member wherein the support member is a metal support member having a surface ~~arranged to be heated~~ and having electrical contacts to receive ~~by~~ an electric current for heating the metal support member; and an absorption member arranged on the surface of the support member having a total surface area which is larger than that of the underlying area of the support member accessible to exhaust gas flowing through the exhaust line for reversible absorption of at least one nitrogen oxide (NO_X) and at least one oxide of sulfur (SO_X); and,

a control unit for controlling regeneration of said oxide gas absorber, said control unit being arranged to periodically change said controllable air/fuel ratio of said engine to a rich mixture to regenerate said absorber and said control unit being arranged to control the temperature of the absorption member by at least one of adjusting composition parameters of the exhaust gas and by application of an electric current to heat said support member.

2. (Cancelled)

3. (Previously Presented) An internal combustion engine arrangement according to claim 1 wherein the metal support member is a metal foil.

4. (Cancelled)

5. (Currently Amended) An internal combustion engine arrangement according to claim ~~2~~ 1 wherein the metal support member has a wall thickness ≤ 0.1 mm.

6. (Original) An internal combustion engine arrangement according to claim 5 wherein the metal support member has a wall thickness ≤ 0.06 mm.

7. (Previously Presented) An internal combustion engine arrangement according to claim 1 wherein the support member contains a plurality of parallel passages through which exhaust gas can be passed and the absorption member is on the inside surface of the passages.

8. (Original) An internal combustion engine arrangement according to claim 7 wherein at least some of the passages have a structure causing turbulent gas flow at least over a portion of the passage.

9. (Original) An internal combustion engine arrangement according to claim 8 wherein the structure causing the turbulent gas flow is at least one of: (a) a variation in cross-section; (b) a corrugation; and (c) a twisting or curvature of the passages.

10. (Original) An internal combustion engine arrangement according to claim 7 wherein the oxide gas absorber is subdivided into a plurality of segments.

11. (Original) An internal combustion engine arrangement according to claim 10 wherein the plurality of segments have at least one of: (a) different lengths; (b) different passage cross-sections; (c) different numbers of passages; and (d) spacing between segments of at least 50 cm.

12. (Previously Presented) An internal combustion engine arrangement according to claim 1 wherein the surface area of the absorption member provides an area of at least 20 m^2 accessible to the exhaust gas per gram of the absorption member.

13. (Previously Presented) An internal combustion engine arrangement according to claim 12 wherein the surface area of the absorption member provides an area of at least 40 m^2 accessible to the exhaust gas per gram of the absorption member.

14. (Previously Presented) An internal combustion engine arrangement according to claim 13 wherein the surface area of the absorption member provides an area of at least 100 m^2 accessible to the exhaust gas per gram of the absorption member.

15. (Previously Presented) An internal combustion engine arrangement according to claim 1 wherein the absorption member contains an aluminum oxide.

16. (Previously Presented) An internal combustion engine arrangement according to claim 15 wherein the absorption member contains gamma aluminum oxide.

17. (Previously Presented) An internal combustion engine arrangement to claim 1 wherein the absorption member contains an element selected from the group consisting of alkali metals, alkaline-earth metals, rare earths, lanthanum, titanium, copper and manganese.

18. (Previously Presented) An internal combustion engine arrangement according to claim 1 wherein the absorption member contains at least one of the elements barium, sodium and potassium.

19. (Previously Presented) An internal combustion engine arrangement according to claim 1 wherein the absorption member absorbs NO_X and/or SO_X from an exhaust gas with an excess of oxygen during lean operation of the internal combustion engine.

20. (Previously Presented) An internal combustion engine arrangement according to claim 1 wherein the absorption member releases NO_X and/or SO_X in a reducing atmosphere and/or at $\lambda \leq 1$.

21. (Previously Presented) An internal combustion engine arrangement according to either of claim 19 or claim 20 including an oxygen concentration measuring means for determining a value representing the oxygen concentration in the exhaust gas and supplying a signal representing the oxygen concentration as an input signal to the control unit, and wherein the control unit uses the oxygen concentration signal to control regeneration of the absorber.

22. (Previously Presented) An internal combustion engine arrangement according to claim 1 wherein the absorption member desorbs NO_X and SO_X at an elevated temperature.

23. (Previously Presented) An internal combustion engine arrangement according to claim 22 including a temperature measuring means for determining a value representing the temperature of at least one of: (a) the exhaust gas; (b) the absorption member; and (c) the support member; and supplying a signal corresponding to that value as an input signal to the control unit for control of regeneration of the absorber.

24. (Original) An internal combustion engine arrangement according to claim 23 wherein the control unit receives signals representing both the oxygen concentration in the exhaust gas and the temperature of the exhaust gas as input signals.

25. (Previously Presented) An internal combustion engine arrangement according to claim 1 wherein the support member is a ceramic member and the absorption member has a thickness of at least 50 microns.

26. (Previously Presented) An internal combustion engine arrangement according to claim 1 wherein the support member is a metal member and the absorption member has a thickness of at least 25 microns.

27. (Previously Presented) An internal combustion engine arrangement according to claim 1 wherein the absorption member is applied as a wash coat.

28. (Previously Presented) An internal combustion engine arrangement according to claim 1 wherein the absorption member contains at least one precious metal.

29. (Original) An internal combustion engine arrangement according to claim 28 wherein the absorption containing the precious metal constitutes an oxidation catalyst or a three-way catalyst.

30. (Previously Presented) An internal combustion engine arrangement according to claim 1 wherein the absorption member accessible to the exhaust gas has a pore volume of at least 0.2 cm^3/g.

31. (Original) An internal combustion engine arrangement according to claim 1 including an oxidation catalyst separate from the oxide gas absorber.

32. (Original) An internal combustion engine arrangement according to claim 31 wherein the oxidation catalyst is a three-way catalyst.